

CLAIMS:

1. An improvement of an inner sole configuration for a protective shoe substantially resulting from a rigid plastic inner sole plate bonded to a shoe sole of the protective shoe, and a shoe head affixed to the shoe sole in a position corresponding to shoe wearer's toes for covering same, characterized by:

the rigid plastic inner sole plate being made of an electrically insulating material, including a top surface formed with a concavity for firmly contacting and supporting a wearer's foot sole, a bottom surface having a curved configuration at a periphery thereof, the rigid plastic inner sole plate further including first, second and third plate bodies positioned in a longitudinal sequence in correspondence to a shape of the wearer's foot sole;

the first plate body including a connecting portion having a recess at an end of the first plate body adjacent to the second plate body, the second plate body including a first connecting portion having an extension at a first end of the second plate body corresponding to the connecting portion of the first plate body, a predetermined clearance being defined in the top surface of the plate between an end of the recess and an end of the extension, and a pair of predetermined spaces being defined in the bottom surface of the plate at respective side margins thereof, each space between the connecting portion of the first plate body and the first connecting portion of the second plate body, and the two connecting portions contacting each other at a middle portion thereof; and

the second plate body including a second connecting portion having a recess at a second end of the second plate body opposite to the first end thereof, the third plate body including a connecting portion having an extension at a first end of the third plate body adjacent to the second plate body, a predetermine clearance being defined in the top surface between an end of the recess and an end of the extension, and a pair of predetermined spaces being defined in the bottom surface of the plate at respective side margins thereof, each space between the second connecting portion of the second plate body and the connecting portion of the third plate body, and the two connecting portions contacting each other at a middle portion thereof, thus the first, second and third plate bodies thereby being pivotal with respect to the one adjacent thereto to conform with a bending movement of the wearer's foot sole, the third plate body further including a recess formed in a lower part of a second end thereof opposite to the first end thereof for engaging a rim of a rigid plastic shoe head.

2. The improvement of an inner sole configuration for a protective shoe as claimed in claim 1, wherein the connecting portion of the first plate body, the first and second connecting portions of the second plate body and the connecting portion of the third plate body comprise a laterally extending rounded bottom end surface, respectively.
3. The improvement of an inner sole configuration for a protective shoe as claimed in claim 1, wherein the

rigid plastic inner sole plate and the shoe head are made of thermosetting resin with reinforcing fibers.

4. The improvement of an inner sole configuration for a protective shoe as claimed in claim 1, wherein the shoe head is a metal product.